

OUR CLIENT'S REF: TSMC-2003-08156516
OUR REF: 0503-9713051 /Amy /Nelson

ABSTRACT OF THE DISCLOSURE

An image sensor improving the uniformity of effective incident light. In one example, the size of microlenses disposed in different regions of the image sensor is changed
5 to balance the brightness in different regions, in which the size of each microlens is a function of the distance between the microlens to the chip center. In another example, the distance between the center of the microlens and the center of the corresponding sensing area is changed to balance the
10 brightness in different regions and the corresponding color filters are shifted such that the microlens is overlying a corresponding color filter unit without overlying adjacent regions thereof, in which the distance between the center of the microlens and the center of the corresponding sensing
15 area is a function of the distance between the corresponding sensing area to the chip center.

BEST AVAILABLE COPY